Investigations

he Office of Investigations handles allegations of fraud, waste, abuse, and mismanagement in NSF programs and operations, as well as allegations of research misconduct associated with NSF programs and operations. We work in partnership with NSF, other agencies, and awardee institutions to resolve issues whenever possible. As appropriate, we 1) refer our investigations to the Department of Justice (DOJ) or other prosecutorial authorities for criminal prosecution or civil litigation, 2) recommend administrative action to NSF, or 3) recommend debarment. The following is an overview of investigative activities, including civil and criminal investigations, significant administrative cases, and focused reviews.

Civil and Criminal Investigations

Network Provider Settles False Claims Act Case for \$1.4 Million

An NSF grantee agreed to pay \$1.4 million to the government to settle a case that involved allegations of conflicts of interests, non-competitive procurement, and the submission of proposals to NSF that omitted material information. Our investigation confirmed the substance of the allegations and also uncovered additional wrongdoing.

The grantee was created as a non-profit organization under a 1986 NSF grant, and received over \$10 million in continuous NSF funding to provide computer network services to its research and education institution (R&E) members. In 1990 the grantee sold its network infrastructure for stock that it later sold for over \$20 million. These funds were referred to as its "endowment." Over the next several years the grantee built up a new network and then decided to reorganize into three entities: "Com," a for-profit company that received the network infrastructure and staff; "Org," a non-profit entity which retained the R&E institution members and continued to apply for and receive NSF funds; and "Net," the non-profit "parent" of Com and Org, which held stock in Com.

Since state law prohibited the direct transfer of the endowment to *Com*, it was allocated to *Net* as part of the reorganization. But *Net*

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Dr. Jim Kroll (right), Director of Administrative Investigations, exchanges views with his counterparts from the Chinese government.

was allowed to provide \$7.5 million of the endowment to a bank as collateral for a loan to *Com*. *Net* then approved *Com*'s plan for the remainder of the assets to be transferred to *Com* over several years, as payments to "subsidize" *Com* for the cost of the network service provided to *Org*'s R&E members. The subsidy was available only to members who purchased their services through *Org* from *Com*. In addition, *Org* was contractually required to procure services for its members solely from *Com*.

Although legally separate and independent, in practice *Org* and *Net* operated solely for the benefit of *Com* and were essentially corporate fictions. *Net* had no employees, and *Org's* staff were actually employees of *Com*, who worked in *Com's* offices performing tasks for *Org. Com*, *Org*, and *Net* also had significantly overlapping boards of directors. *Org's* newly hired president raised questions about the absence of competitive procurement and the exorbitant charges *Org* was required to pay *Com* for "rent," personnel, and expenses. When he argued that *Org* should be run in the best interests of its R&E members rather than those of *Com*, he was terminated from his position. He then conveyed his concerns to the NSF OIG.

NSF grant conditions require competition in procurement and avoidance of conflicts of interests. It was alleged that the combination of overlapping boards, pervasive management control by *Com*, and the sole-source procurement contract, made it impossible for *Org* to comply with these requirements. In addition, *Org* did not disclose the facts about its reorganization to NSF as required under its grant agreements, or in its subsequent proposals. *Org's* withholding of this information enabled it to receive grant funds it would otherwise be prohibited from receiving. Documents provided by *Com*, *Org*, and *Net* (collectively, the defendants) in response to our subpoenas substantiated all of the allegations.

We also found that the grantee violated NSF requirements concerning program income. "Program income" refers to income earned by a grantee that is directly

generated by the grant activity. NSF grant conditions require that program income be used to further the objectives of the grant project, subject to the same rules as the direct federal grant funds. We concluded that all of the funds in the endowment constituted program income.

The former president of Org filed a qui tam action under the False Claims Act (FCA) against the defendants. Qui tam actions are initially filed under seal, while the Department of Justice (DOJ) assesses the evidence and the merits of the case to decide whether DOJ will "intervene" and prosecute the case. After we apprised DOJ of the evidence gathered in our investigation, it notified the defendants that DOJ would intervene in the FCA case.

The post-reorganization proposals and other requests for payment submitted by the defendants (under the name of the original grantee) failed to disclose the conflicted and non-competitive practices under which they operated, rendering the proposals and other requests false claims under the FCA. As a result, the damages to the government for these false claims was \$2.4 million.

Besides the FCA, there were two additional grounds for recovery by the government based on the defendant's possession and misuse of program income. First, because the defendants' corporate structure caused them to be intrinsically unable to expend properly the program income in the endowment, the government could recover those funds through the judicial imposition of a constructive trust. Second, the grant and endowment funds paid by Org and Net to Com in violation of the grant conditions could be deemed to have been illegally "converted" by Org and Net, enabling the government to recover them by bringing a conversion action.

While this case was pending, Net and Org took affirmative steps to make themselves independent, including constituting boards that did not overlap with Com's, and acquiring their own office space and employees. Also during this time, Com succumbed to the bursting of the dot-com bubble and entered into bankruptcy proceedings, with the result that the \$7.5 million of the endowment used to secure the bank loan to Com was lost.

Net and Org settled this case with DOJ by paying \$1.4 million. Under the qui tam provisions of the FCA, Org's former president received 23% of the settlement amount; and the non-profit was also required to pay the former president's attorney's fees.

Small Business Grantee Receives Two Awards for Same Work

A company submitted similar proposals that included much of the same work to both the NSF Small Business Innovation Research (SBIR) Program and to the U.S. Air Force (USAF) SBIR Program. In April 1996, the company received \$75,000 from NSF and \$99,962 from USAF for the overlapping Phase I awards. The company did not disclose the USAF project to NSF, and falsely certified that it had "not accepted funding for the same or overlapping work". The company subsequently submitted Phase I Reports to NSF and USAF that included substantially the same results. Later, it applied for and received follow-on Phase II awards from both agencies that contained less overlapping material.

At our request, the NSF SBIR Program reviewed the Phase I proposals and concluded that it would not have awarded the grant if it had known about the USAF project. The Program also reviewed the Phase I final reports and concluded that there was so much overlap that it would not have funded the NSF Phase II proposal if the company had disclosed the existence of the USAF Phase I award and Phase II proposal. We also asked an outside expert to review the proposals and reports, and independently he came to the same conclusions.

Following our recommendation, the NSF SBIR Program declined to disburse the \$56,578 final payment under the Phase II grant. We referred our findings to the U.S. Attorney's Office, which engaged in discussions with the company's counsel. The company agreed to a civil settlement totaling \$66,578 that included forfeit of the remaining \$56,578 of the Phase II grant, and payment of an additional \$10,000 to the government.

Cases of Employee Fraud Prompt Universities to Strengthen Controls

Three universities that were victimized by fraud recently reported making management improvements to prevent future occurrences. In a case resolved this period, an A-133 audit report disclosed that a university grant administrator fraudulently charged approximately \$235,000 to various university grant accounts. The fraud included \$79,220 to Federal grant accounts, of which \$3,480 was charged to an NSF grant account. The administrator pled guilty to one count of mail fraud (18 U.S.C. § 1341), and was sentenced to 18 months in prison followed by 3 years of supervised release, and ordered to pay restitution of \$215,835.05. We recommended that NSF debar him for three years.

When an investigation reveals that an employee of an awardee institution has embezzled funds, we routinely ask the institution to describe what systemic actions have been implemented to minimize the likelihood of a recurrence of fraudulent activity. In response to our request for information, the university reported that sign-off procedures had been strengthened to include random reviews of the verifying vendor, signature cards, and documentation of approved check requisitions to ensure that the grant administrators followed proper procedures. The university is also in the process of implementing a new purchasing and account-payable system that will require electronic approvals from authorized individuals as well as vendor review and approval before expenditures are approved for payment.

In our September 2002 Semiannual Report (page 38), we discussed two cases of fraud by university employees. In the first case, an Assistant Director of

Administration pled guilty to submitting fraudulent travel reimbursements, and was sentenced to 3 years probation, 150 hours of community service, and ordered to pay \$19,871.63 in restitution. Following our recommendation, NSF debarred the employee for 3 years. At our prompting, the university reported the following improvements to internal controls: 1) travel reimbursements are audited monthly, 2) reimbursement requests for conferences attended are verified and reviewed to ensure minimal stay, and 3) reimbursement requests from authorized delegates require the signature of the Principal Investigator.

In the second case, a Digital Image Specialist who also handled time cards for her Department fraudulently endorsed and cashed 40 payroll checks payable to temporary employees. The university terminated the employee and returned the funds to the grants. NSF debarred the employee for a period of two years. In response to our query, the university reported implementing: 1) required internal training for department payroll administrators, 2) required countersignatures by the Academic Department Manager after review and approval by the laboratory administrator or Principal Investigator, and 3) the mailing of all university W-2 forms directly to employees' homes rather than distributed internally. Additional improvements underway at the university include mandatory direct deposit of payroll, expansion of a new automated time and attendance system for departments that are heavy users of temporary employees, and new on-line processing technology implementing an automated authentication process for signature authorizations.

False Assurance Results in Suspension and Strict Certification Requirements

In our March 2002 Semiannual Report (page 49), we discussed a case in which a public university received an NSF award based on a false assurance that the proposed vertebrate animal research had been reviewed and approved by its Institutional Animal Care and Use Committee. During the course of our review, NSF suspended the current award while NSF worked with the institution to develop a Special Project Assurance for the research.

Consistent with our recommendation, the Division of Grants and Agreements imposed the following remedial actions: 1) in conjunction with each proposal involving research with vertebrate animals, the university is required to provide a statement that it has a formal mechanism for assuring compliance with relevant federal regulations, and 2) faculty and staff who are responsible for the administration and conduct of federal grants must receive appropriate training. In addition, during the life of the current awards, the institution is required to provide annual follow-up reports to NSF detailing actions it has taken in connection with NSF supported vertebrate animal research, the results of any state or federal agency inspection of its facilities, and its responses to any recommendations made in connection with those inspections.

University Violates Cost-Sharing Requirements

In our September 2002 Semiannual Report (page 43), we described a case in which it was alleged that a northeastern university committed fraud by repeatedly using Federal money as a source for cost-sharing funds under a Young Investigator grant. Such funds were not eligible as a source for matching under the requirements of the grant. We conducted an investigation into the fraud allegations and concluded that the institution did not act with fraudulent intent. A concurrent audit report confirmed our conclusion regarding the cost sharing. We referred the matter to the Cost Analysis and Audit Resolution Branch of NSF's Contracts, Policy and Oversight (CPO) Division. CPO concluded that the university should repay \$53,900 to NSF. The university appealed that decision, but NSF's Division of Grants and Agreements concurred with CPO and the entire amount was sustained as an unallowable cost. The institution's Federal Cash Transaction Report for the period ending December 31, 2002 included an adjustment to the grant for the \$53,900.

Administrative Investigations

Consistent with the guidance in the Office of Science and Technology Policy, we coordinated our investigative efforts on three misconduct cases with other Federal agencies. Significant cases solely within our jurisdiction are described below.

Pattern of Plagiarism Leads to Debarment Recommendation

We received a complaint that a computer scientist incorporated verbatim text from another scientist's successful proposal into his own Faculty Early Career Development (CAREER) proposal. Our analysis indicated that the proposal, submitted by an assistant professor of computer science at a Western university, not only contained some 90 lines from another PI's proposal, but also contained unattributed text from a dozen other sources. In response to our request for explanation, the subject acknowledged copying material without attribution and distinction. We therefore notified the subject's university and deferred further investigation while the university conducted its own investigation. The university's investigating committee found that the subject committed plagiarism constituting misconduct in science. The university Provost decided that the seriousness of the matter warranted termination, and placed the subject on a one-year nonrenewable contract.

After reviewing the university's investigation report and evidence, we determined that we could accept its findings and conclusions regarding the alleged plagiarism at issue in this case. However, in deciding what final actions to recommend to NSF management, our office must assess whether the misconduct was an isolated event or part of a pattern. We reviewed documents for which the subject claimed authorship and uncovered apparent plagiarism in four other NSF proposals as well

as the subject's doctoral dissertation, demonstrating a substantial pattern of plagiarism.

We recommended that NSF find the subject committed misconduct in science and send him a letter of reprimand. In addition, to protect the interests of NSF and the Federal government, we recommended that the subject be debarred for three years and excluded from serving as an NSF reviewer, advisor, or consultant for a period of five years.

NSF Support of Employee Research Should be Acknowledged

We initiated a review of NSF's Independent Research and Development (IR/D) program, in connection with an allegation that an NSF employee authored and edited publications under an IR/D agreement without acknowledging NSF support. It was alleged that the employee's publications related to the IR/D did not provide acknowledgement of NSF support, or use the employee's NSF address, or contain a disclaimer about NSF endorsement of the contents of the paper. Because NSF had no policy concerning such publications, we closed our investigation and initiated a review of the IR/D issues.

The IR/D program enables NSF employees to maintain their involvement in professional research. Permanent and temporary employees may participate in the program, and participants frequently publish research papers that describe the results of their IR/D efforts. The IR/D program provides an excellent vehicle for NSF employees to maintain their involvement in professional research. The IR/D agreement must be approved by the applicant's supervisor, and NSF's Division of Human Resource Management and reviewed for conflict-of-interest issues by the Office of General Counsel.



Julie Ostwald, an extern from Douglass College and Shanchao Wu, visiting intern from the NSFC, discuss OIG policies with Dr. Boesz.

We reviewed the publications of permanent NSF employees with IR/D plans, and found that half of these employees either provided NSF acknowledgement or identified NSF as their mailing address, while the other half used the address of another institution. We recommended that NSF develop a policy describing how permanent NSF employees should acknowledge NSF support in their IR/D-related publications, and NSF agreed. The new NSF policy covers all IRD participants and: (1) requires acknowledgment of NSF support in IR/D-related publications and provides recommended language for the acknowledgement; (2) requires the use of a disclaimer stating that the publication does not necessarily reflect the views of NSF (except when NSF has reviewed the material before publication); and (3) permits the use of the employee's NSF address for contact information.

Long Distance Phone Review Results in Investigation and Recommendations to Improve NSF's Process

A broad review was conducted of long-distance telephone calls made by NSF employees over a 9-month period in 2002 in order to evaluate NSF's practices and the potential for abuse. We examined calls charged to NSF-issued calling cards, as well as office calls, and reviewed governing policies and procedures. We concluded that the timing of the calling card calls appeared consistent with periods of employee travel on NSF business, and that the calls were appropriately related to the conduct of NSF business.

With regard to long distance calls made from NSF office telephones, we paid particular attention to records of lengthy and numerous calls to numbers outside the local commuting area, or to numbers with no apparent connection to NSF business. Our examination revealed an isolated instance in which an NSF employee made an average of 940 minutes of personal calls every month over the period of our review. These calls included long-distance calls in support of at least one of the employee's outside business activities. The employee often claimed credit hours on the same workdays when she made lengthy personal telephone calls. Despite admonitions from her supervisors that the calls were interfering with her job performance, they continued. We referred the results of our investigation to NSF for administrative resolution. In addition we issued a report to NSF recommending that procedures aimed at informing employees of appropriate telephone usage along with oversight of such use by supervisors, be strengthened.

Failed Collaborations Lead to Unnecessary Allegations of Misconduct

NSF encourages researchers to participate in collaborative efforts as a way to leverage and enhance the results produced. Previous semiannual reports have discussed contentious issues that have arisen out of failed collaborative research. Our office regularly receives research misconduct allegations arising from failed

collaborations where responsibilities and expectations were not well defined. During this period, OIG spent significant time resolving three more cases involving failed collaborative efforts.

In one poignant case, an institution initiated an inquiry into an allegation of duplicate funding and plagiarism by an employee. The allegations involved proposals funded by or submitted to NSF that described several different collaborative research efforts. The institution's inquiry determined the allegation of duplicate funding had no substance, however, it did initiate a full investigation into the allegation of plagiarism. The institutional investigation ultimately was unable to determine the original authorship of text in question and subsequently determined that the employee did not commit research misconduct.

Scientists can avoid misunderstandings with colleagues and being the focal point of research misconduct investigations if they clearly document their individual expectations regarding sample handling and storage, sharing of data and samples, intellectual property, and publication responsibility before the collaborative effort begins. We encourage awardee institutions to ensure that such agreements are developed in both inter- and intra- institutional collaborations before the collaborations are initiated.